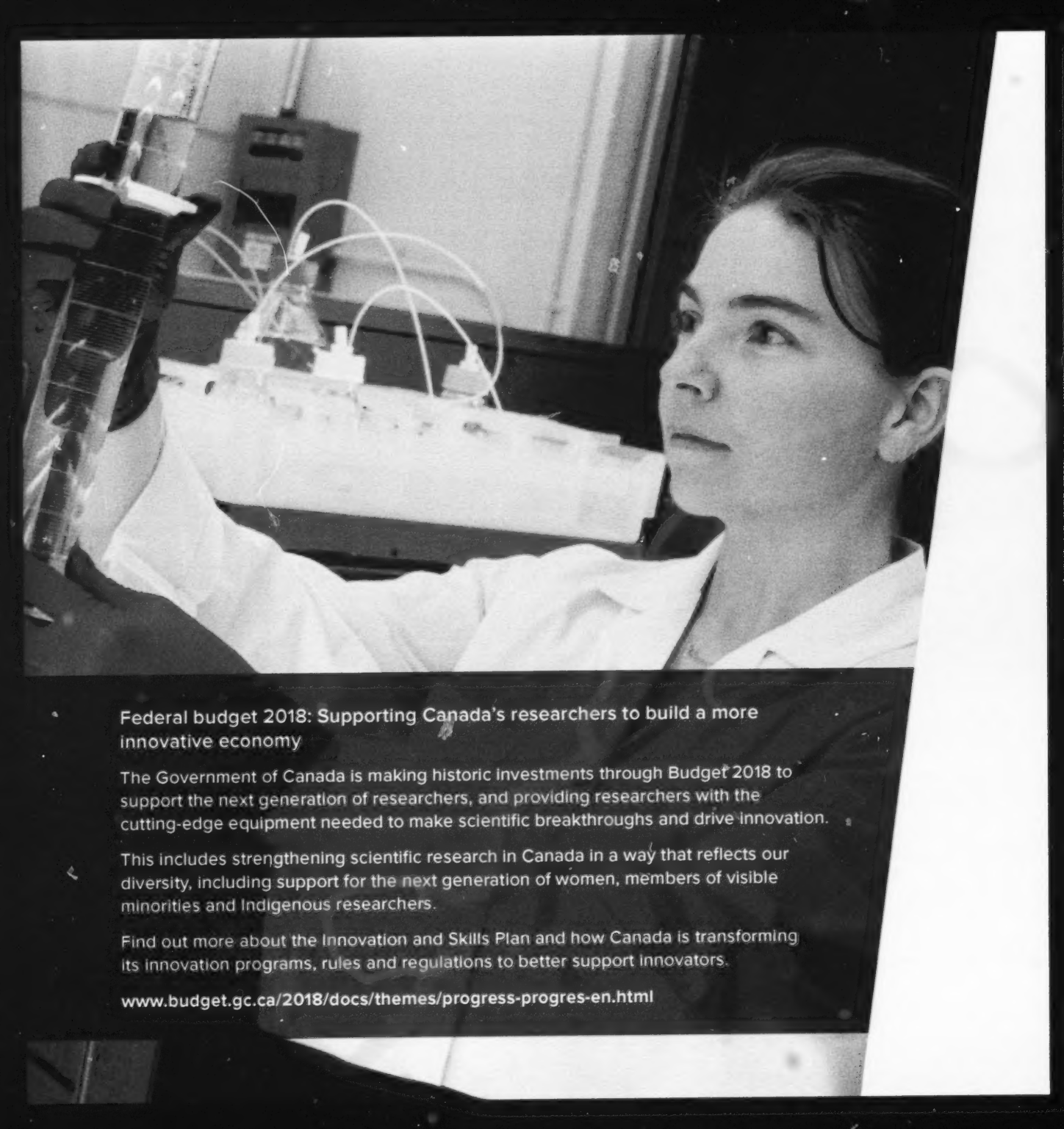
Canada's federal programs in biotechnology for human health

think
CANADA
partnerships ◆ research ◆ innovation ◆ talent

BIO International Convention **2018**

Government of Canada / Gouvernement du Canada

Canada



Federal budget 2018: Supporting Canada's researchers to build a more innovative economy

The Government of Canada is making historic investments through Budget 2018 to support the next generation of researchers, and providing researchers with the cutting-edge equipment needed to make scientific breakthroughs and drive innovation.

This includes strengthening scientific research in Canada in a way that reflects our diversity, including support for the next generation of women, members of visible minorities and Indigenous researchers.

Find out more about the Innovation and Skills Plan and how Canada is transforming its innovation programs, rules and regulations to better support innovators.

www.budget.gc.ca/2018/docs/themes/progress-progres-en.html

Canada Pavilion
June 5-7, 2018

Exhibition Hall, Boston Convention and Exhibition Center

Opening ceremony June 5 at 10:30 a.m.

Join us for the opening ceremony of the Canada Pavilion, where federal and other Canadian dignitaries will deliver remarks.

Exhibition June 5-7 from 10:00 a.m. to 6:00 p.m.

- Visit the federal family booth to discover our programs in biotech for human health
- Connect with the National Research Council of Canada's (NRC) business development officers, scientific program leaders, communications officer, and Industrial Research Assistance Program (IRAP)
- Connect with Global Affairs Canada trade commissioners from all around the world
- Take a virtual reality tour of the NRC's biomanufacturing pilot plants

We don't just see your industry.
We see you.
You're a lot more than beakers and microscopes.
You're innovators whose companies can make a difference.
You need to hire top talent.
Get some research money.
And maybe some expert advice.
We get that.
We're a lot more than just research funding.
There's over 1,000 things governments
can do for businesses.
Which ones apply to you?
Innovation.canada.ca
Canada

Table of contents

Research and innovation

Innovation, Science, and Economic Development 2

Canadian Intellectual Property Office 3

Genome Canada 4

National Research Council of Canada 5

Canadian Institutes of Health Research 6

Trade and investment

Global Affairs Canada 7

Export Development Canada 8

Business Development Bank of Canada 8

Regional Development Agencies 9

Regulatory and surveillance

Public Health Agency of Canada 10

Health Canada 11

Innovation, Science, and Economic Development (ISED)

Seventeen federal departments and agencies make up the Innovation, Science and Economic Development (ISED) Portfolio, working to build a knowledge-based economy in all regions of Canada and to advance the government's Innovation and Skills Plan.

The ISED portfolio provides support to research and development through the National Research Council of Canada and the Canada Foundation for Innovation, through initiatives including Genome Canada, the Stem Cell Network and the Centre for Drug Research and Development, as well as through investments in National Centres of Excellence. Support to companies in the life sciences for research, commercialization, growth and expansion, includes that provided by the NRC's Industrial Research Assistance Program, the Regional Development Agencies, and by the all-sector Strategic Innovation Fund (SIF). In addition, following Budget 2018, the Centres of Excellence for Commercialization and Research and Business-led Networks of Centres of Excellence will be consolidated into SIF. ISED, through the creation of Innovation Canada, has committed to simplify the process for innovative firms to access the support they need for growth.

Research Networks
(Networks of Centres of Excellence and Networks of Centres of Excellence for Knowledge Mobilization)
$128M

- Allergy, Genes and Environment Network – AllerGen
- Biotherapeutics for Cancer Treatment – BioCanRx
- Canadian Glycomics Network – GlycoNet
- CellCAN Regenerative Medicine and Cell Therapy Network – CellCAN

Business-led Networks
(Centres of Excellence for Commercialization and Research and Business-led Networks of Centres of Excellence)
$173.5M

- Accel-Rx Health Sciences Accelerator – Accel-Rx
- Centre for Commercialization of Cancer Immunotherapy – C3i
- Centre for the Commercialization of Antibodies and Biologics – CCAB
- Centre for Commercialization of Regenerative Medicine – CCRM
- Centre for Drug Research and Development – CDRD
- Centre for Imaging Technology Commercialization – CIMTEC
- Consortium québécois sur la découverte du médicament – CQDM
- MaRS Innovation – MI
- NEOMED Institute – NEOMED

$385M university, hospital, infrastructure support

- Canada Foundation for Innovation – Major Science Initiatives Fund: $85M
- Canada First Research Excellence Fund: $300M

Strategic Innovation Fund

Example of investment: $22.5M granted to Stemcell Technologies to enable the establishment of a new stem cell manufacturing facility in Vancouver

1-800-328-6189
www.ic.gc.ca, www.nce-rce.gc.ca,
www.innovation.ca, www.cfref-apogee.gc.ca

Canadian Intellectual Property Office (CIPO)

The Canadian Intellectual Property Office (CIPO) is responsible for the administration and processing of the greater part of intellectual property (IP) in Canada. CIPO's areas of activity include: patents, trademarks, copyrights, industrial designs and integrated circuit topographies.

Variety of IP tools and resources tailored to businesses and innovators

Suite of seminars and training services for businesses

Online IP tools and resources to help you better acquire, manage and leverage your IP assets

IP professionals ready to answer your questions

Going global with your IP

Practical advice for determining your international IP strategy

Guides to protecting your IP in the United States, the European Union, China, and India

File once: Apply for foreign patents from within Canada under the Patent Cooperation Treaty (PCT), or apply for Canadian patents from your jurisdiction under PCT

1-866-997-1936
www.canada.ca/ip-for-business

Genome Canada (GC)

Genome Canada harnesses the transformative power of genomics to deliver benefits to Canadians and people around the world.

We support large-scale research projects in health, agriculture and agri-food, forestry, fisheries and aquaculture, environment, energy and mining.

Quick facts

- 6 regional Genome Centres across Canada
- $3.6 billion invested in Canadian genomics by GC and partners since 2000
- >330 projects and technology platforms funded
- >30 universities involved
- >2,000 active annual HQP
- >245 industry co-funding partners
- >175 companies created or enhanced
- Canada is a genomic leader in rare genetic disorders, cancer and pediatric health, among other areas.

1-613-751-4460
www.genomecanada.ca

National Research Council of Canada (NRC)

The National Research Council of Canada works with Canadian and international organizations to advance innovative biologics and vaccines toward clinical trials.

Our Industrial Research Assistance Program provides advice and financing to Canadian SMEs to stimulate wealth creation, product development and commercialization, and connects Canadian companies with international innovation networks.

Industrial Research Assistance Program (IRAP)

Stimulate SME wealth creation through a comprehensive suite of innovation services and funding

Technical and business advice from concept to commercialization

Networking, connecting with industry experts and potential business partners

Financial support for projects through all stages of the innovation process

Biomedical-experienced advisors located across the country

Human Health Therapeutics and Medical Device R&D

4 collaborative research programs:

- Biologics and Biomanufacturing
- Vaccines and Immunotherapeutics
- Therapeutics Beyond Brain Barriers
- Health Technologies

400 experts in the lab to help SMEs reach IND

State of the art facilities for discovery, development, biomanufacturing, and analysis

Tech transfer to CROs and CMOs

1-877-NRC-CNRC
www.nrc-cnrc.gc.ca

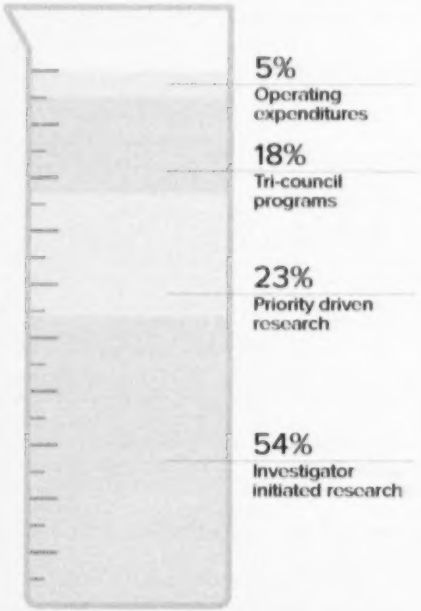
Canadian Institutes of Health Research (CIHR)

The Canadian Institutes of Health Research (CIHR) is Canada's federal funding agency for health research. Composed of 13 Institutes, we collaborate with partners and researchers to support the discoveries and innovations that improve our health and strengthen our health care system.

Institutes: virtual networks of researchers that focus on important health problems

- Aboriginal Peoples' Health
- Aging
- Cancer Research
- Circulatory and Respiratory Health
- Gender and Health
- Genetics
- Health Services and Policy Research
- Human Development, Child and Youth Health
- Infection and Immunity
- Musculoskeletal Health and Arthritis
- Neurosciences, Mental Health and Addiction
- Nutrition, Metabolism and Diabetes
- Population and Public Health

$1B / year to support health research



International collaborations

- Attracting and retaining the best international scholars and experts
- Connecting Canadian researchers and trainees with top health researchers in the international community
- Leading the development of international health research consortia
- Facilitating health research capacity building in low- and middle-income countries
- Addressing internationally recognized global health priorities; proactively responding to emerging health threats

1-888-603-4178
www.cihr-irsc.gc.ca

Global Affairs Canada (GAC)

Every day, leading companies and organizations from around the world turn to Canada as their trusted business partner. With a dynamic marketplace supported by a competitive and innovative economy, Canada is world-renowned for its excellence in life sciences. Let our team of professionals at Global Affairs Canada help you to connect with Canada.

The Canadian Trade Commissioner Service (TCS)

The Canadian Trade Commissioner Service is the strategic link to finding the right Canadian partners to match your specific requirements for procurement, investment, innovation or education.

Source: Introductions to Canadian organization to meet your needs for high quality products, services or technologies

Invest: Strategic intelligence about Canada's welcoming business environment, competitive business costs, low taxes and highly educated workforce, to establish or expand your business in Canada

Innovate: Connections to research and development partners in Canada

Network: Offices located around the world in over 160 cities, and introductions to Canadian firms ready to do business in your market

Business development programs

Canadian Technology Accelerator (CTA)
Supports high potential Canadian technology companies to expand internationally (Boston, New York, Palo Alto)

Going Global Innovation (GGI)
Funding program to support innovators wanting to expand into international markets (max. $100k for eligible expenses)

CanExport
Matching funds program towards export development (max. $100k)

1-613-944-4000
www.international.gc.ca

Export Development Canada (EDC)

Helping Canadian companies grow and succeed in international business

Financing, insurance, bonding, trade knowledge, and matchmaking to help Canadian companies sell and invest abroad

Financial solutions for foreign buyers to facilitate and grow purchases from Canadian companies

1-800-229-0575
www.edc.ca

Business Development Bank of Canada (BDC)

Financing solutions

Getting your growth project underway

Advisory services

Providing expert advice to run a better, more profitable business

International expansion

Consulting to successfully enter foreign markets

Venture Capital Action Plan (VCAP)

$158M for health IT, medical devices, and clinical stage biopharmaceuticals

Healthcare Venture Fund (HVF)

$270M for biotechnology, medical devices, diagnostics, digital health, and drug development

1-877-BDC-BANX
www.bdc.ca

Regional Development Agencies

Regionally-tailored programs, services, knowledge and expertise

$511M announced in Budget 2018 to support the Innovation and Skills Plan across all regions of Canada

Streamlining of Regional Development Agency programming: greater emphasis in helping firms scale up, develop new markets and expand, as well as assist with the adoption of new technologies and processes

Public Health Agency of Canada (PHAC)

Mandate

Promote health

Prevent and control chronic diseases and injuries

Prevent and control infectious diseases

Prepare for and respond to public health emergencies

Serve as a central point for sharing Canada's expertise with the world

Apply international research and development to Canada's public health programs

Strengthen intergovernmental collaboration on public health and facilitate national approaches to public health policy and planning.

Biotech

Science innovation: Technology advancements to modernize public health investigations

Infectious and chronic diseases: prevention, monitoring, treatments

Immunization and vaccines: national priorities for development, existing vaccines for children and adults, pregnancy, safety, travel

Lab biosafety and biosecurity: Human Pathogens and Toxins Regulations (HPTR) licensing program, guidelines, training, and enforcement

Surveillance programs: Over 50 specialised surveillance systems to address specific diseases and health concerns

1-844-280-5020
www.phac-aspc.gc.ca

Health Canada (HC)

Regulatory activities

Health products

- **Review and evaluation:** testing, manufacture, preparation, preservation, packaging, administration, storage and sale of health products
- **Compliance and enforcement:** education, compliance monitoring and investigation, enforcement
- **Monitoring and tracking:** post-market surveillance, risk/benefit analysis, labelling changes, advisories, warnings, product removal from marketplace

Food products and environmental/ industrial products are regulated separately.

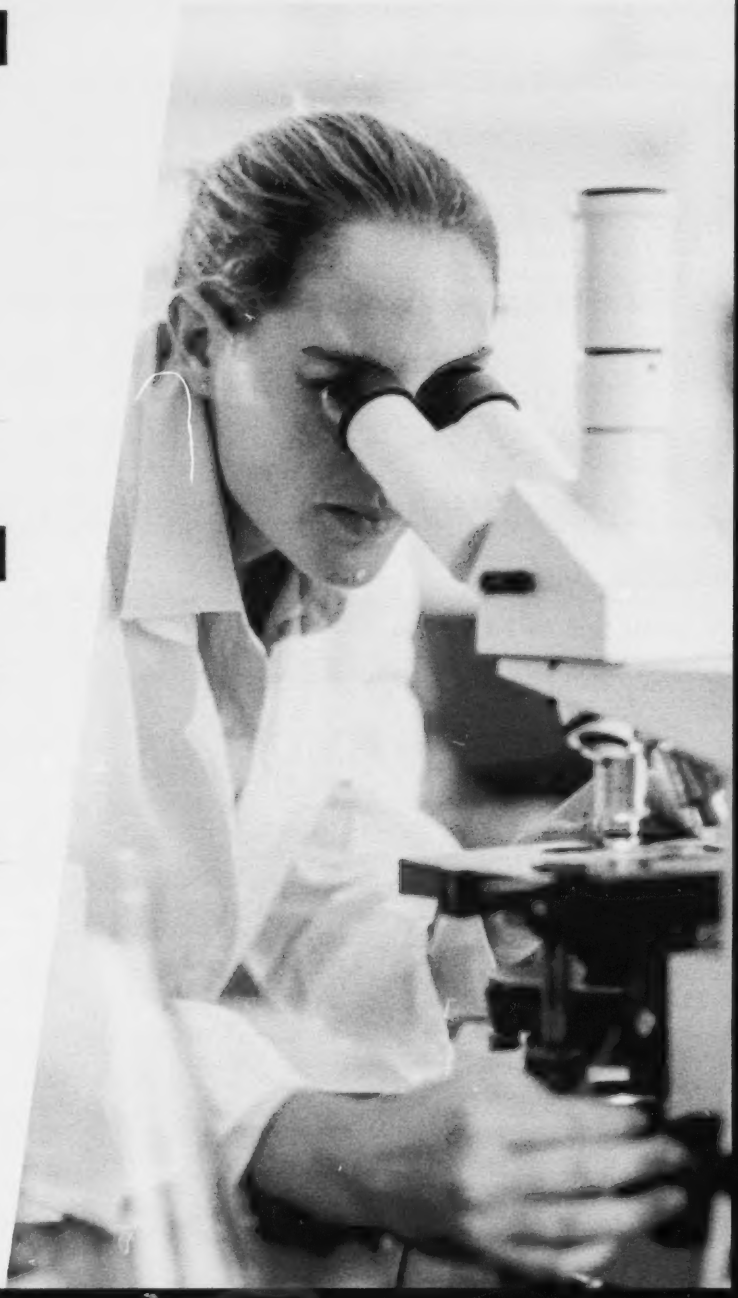
Lab activities

Research activities

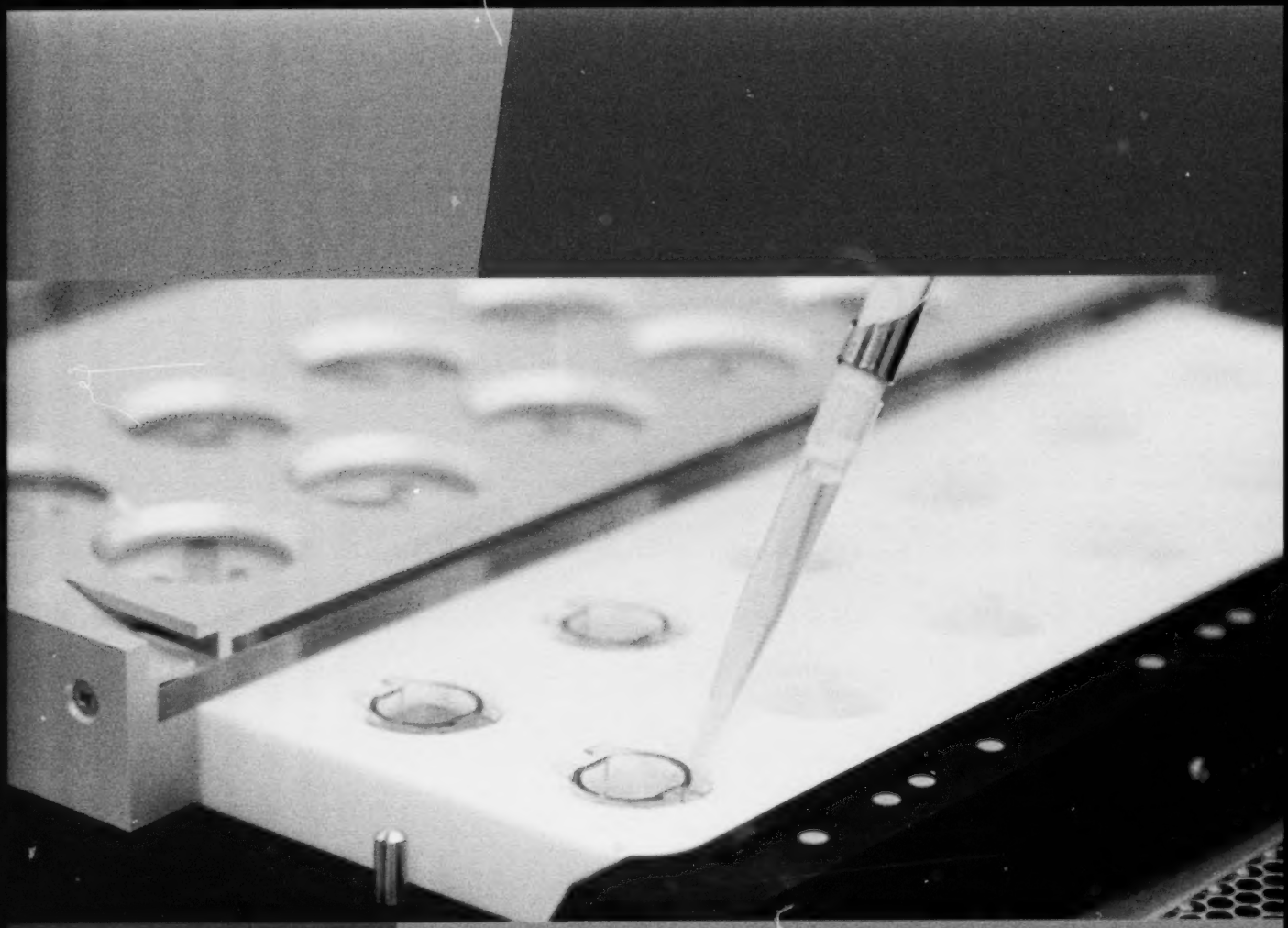
- Better understand methods for assuring quality of biologics
- Develop new testing methods and techniques for the regulatory process
- Determine mechanism of action for various classes of biologics
- Generate scientific evidence to support effective decision-making

Product evaluation activities

- Batch testing
- Lot release testing: products assigned to one of Evaluation Groups with different levels of supervision



1-866-225-0709
www.hc-sc.gc.ca



NR16-145/2018E-PDF
ISBN 978-0-660-26745-6 PDF
ISBN978-0-660-26746-3 PAPER

May 2018
Également disponible en français